

# Notice of Allowability

Application No.

09/732,954

Examiner

Andrew L. Nalven

Applicant(s)

WRAY, MICHAEL

Art Unit

2134

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to appeal brief filed 11/22/2006.
2. ☒ The allowed claim(s) is/are 1-36.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All b) ☐ Some\* c) ☐ None of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
  - \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date See Continuation Sheet
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
KAMBIZ ZAND  
PRIMARY EXAMINER

Continuation of Attachment(s) 3. Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date: 1/29/2007, 12/08/2006.

### EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Robert Popa (Reg# 43,010) on 1 March 2007.

The application has been amended as follows:

Claim 7. A method according to any one of ~~the preceding~~ claims 1-5, wherein at least some of said certificates used in proving a determined trust chain as found have associated validity data, the method comprising the further step of traversing the trust chain in a forwards direction from the trusted attribute delegation that grounds it and combining the validity data of all certificates involved to determine the validity of the overall attribute delegation represented by the chain.

Claim 9. A method according to any one of ~~the preceding~~ claims 1-5, wherein an attribute-delegation certificate used to prove a said subgoal has a subject-directed condition associated with it requiring that a specified subject must have a particular attribute in order for the delegation to be valid, and wherein the process of (b) further comprises:

making said subject-directed condition a further subgoal to be proved for the current chain being followed.

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Claim 11. A method of selecting certificates to be sent to a resource which requires proof that a subject has a particular attribute before allowing use of the resource, comprising:

finding a trust chain by the method of any one of claims 1 to ~~[[7]]~~ 5 in respect of said subject and an issuer known, or likely, to be trusted by said resource; and

selecting for sending to said resource certificates associated with a trust chain, if any, thereby found.

Claim 12. A method of determining whether a resource requiring a user to have at least one predetermined attribute, is usable by a subject presenting certificates to the resource, comprising:

finding a trust chain by the method of any one of claims 1 to ~~[[7]]~~ 5 in respect of said subject and an issuer known and trusted by said resource; and

determining that use of the resource by the subject is permitted if a trust chain can be found.

Claim 19. A system according to any one of claims 13-~~[[18]]~~ 17, wherein at least some of said certificates used in proving a determined trust chain as found have associated validity data, the processor further for traversing the trust chain in a forwards direction from the trusted attribute delegation that grounds it and combining the validity data of all certificates involved to determine the validity of the overall attribute delegation represented by the chain.

Claim 21. A system according to any one of claims 13-~~[[20]]~~ 17, wherein an attribute-delegation certificate used to prove a said subgoal has a subject-directed condition associated with it requiring that a specified subject must have a particular attribute in order for the delegation to be valid, and wherein seeking a backwards proof further comprises:

making said subject-directed condition a further subgoal to be proved for the current chain being followed.

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Claim 23. A system according to any one of claims 13-[[18]] 17, wherein said processor is further for selecting certificates to be sent to a resource which requires proof that a subject has a particular attribute before allowing use of the resource by:

- finding a trust chain in respect of said subject and an issuer known, or likely, to be trusted by said resource; and

- selecting for sending to said resource certificates associated with a trust chain, if any, thereby found.

Claim 24. A system according to any one of claims 13-[[18]] 17, wherein said processor is further for determining whether a resource requiring a user to have at least one predetermined attribute is usable by a subject presenting certificates to the resource, by:

- finding a trust chain in respect of said subject and an issuer known and trusted by said resource; and

- determining that use of the resource by the subject is permitted if a trust chain can be found.

Claim 31. A computer program product according to any one of claims 25-[[30]] 29, wherein at least some of said certificates used in proving a determined trust chain as found have associated validity data, the method further comprising traversing the trust chain in a forwards direction from the trusted attribute delegation that grounds it and combining the validity data of all certificates involved to determine the validity of the overall attribute delegation represented by the chain.

Claim 32. A computer program product according to claim [[19]] 31, wherein determining that a trust chain has been found comprises storing the state of the seeking of a backwards proof prior to checking the validity of the trust chain found, this state being used to continue the process should the check of the validity of the initially found chain show that the chain is not valid.

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Claim 33. A computer program product according to any one of claims 25-~~[[32]]~~ 29, wherein an attribute-delegation certificate used to prove a said subgoal has a subject-directed condition associated with it requiring that a specified subject must have a particular attribute in order for the delegation to be valid, and wherein seeking a backwards proof further comprises:

making said subject-directed condition a further subgoal to be proved for the current chain being followed.

Claim 35. A computer program product according to any one of claims 25-~~[[30]]~~ 29 and further for selecting certificates to be sent to a resource which requires proof that a subject has a particular attribute before allowing use of the resource, by:

finding a trust chain in respect of said subject and an issuer known, or likely, to be trusted by said resource; and

selecting for sending to said resource certificates associated with a trust chain, if any, thereby found.

Claim 36. A computer program product according to any one of claims 25-~~[[30]]~~ 29 and further for determining whether a resource requiring a user to have at least one predetermined attribute is usable by a subject presenting certificates to the resource, by:

finding a trust chain in respect of said subject and an issuer known and trusted by said resource; and

determining that use of the resource by the subject is permitted if a trust chain can be found.

Claims 1-36 are allowed.

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The following is an examiner's statement of reasons for allowance: Applicant's arguments filed in the appeal brief received 11/22/2006 are persuasive. The cited prior art fails to anticipate or render obvious claims 1-36 for the reasons cited therein.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew L. Nalven whose telephone number is 571 272 3839. The examiner can normally be reached on Monday - Thursday 8-6, Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz Zand can be reached on 571 272 3811. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Andrew Nalven  
AN

  
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